

AMENDMENTS TO THE CLAIMS:

Amend the claims as follows:

1. (Currently Amended) An antibody conjugate, comprising a ~~humanized monoclonal~~ antibody or an antibody fragment thereof which is conjugated with a protein or a low molecular weight agent, wherein the ~~humanized monoclonal~~ antibody or the antibody fragment thereof specifically binds to ganglioside GD3 and comprises:

CDR1, CDR2 and CDR3 of H chain V region having the amino acid sequences represented by SEQ ID NOs:3, 4 and 5, respectively; and

CDR1, CDR2 and CDR3 of L chain V region having the amino acid sequences represented by SEQ ID NOs:6, 7 and 8, respectively; and

an H chain V region having the amino acid sequence represented by SEQ ID NO:9, or

an L chain V region having the amino acid sequence represented by SEQ ID NO:54.

Claims 2-14. (Canceled)

15. (Currently Amended) The antibody conjugate according to claim 1[[2]], wherein the humanized antibody comprises:

~~CDR1, CDR2 and CDR3 of the H chain V region having the amino acid sequences represented by SEQ ID NOs:3, 4 and 5, respectively;~~

~~CDR1, CDR2 and CDR3 of the L chain V region having the amino acid sequences represented by SEQ ID NOs:6, 7 and 8, respectively; and~~
framework regions (FRs) of an H chain V region and an L chain V region of a human antibody.

16. (Currently Amended) The antibody conjugate according to claim 1 [[2]], wherein the humanized antibody comprises:

~~CDR1, CDR2 and CDR3 of the H chain V region having the amino acid sequences represented by SEQ ID NOs:3, 4 and 5, respectively;~~

~~CDR1, CDR2 and CDR3 of the L chain V region having the amino acid sequences represented by SEQ ID NOs:6, 7 and 8, respectively;~~

FRs of an H chain V region and an L chain V region of a human antibody; and
an H chain C region and an L chain C region of a human antibody.

Claims 17-21. (Canceled)

22. (Currently Amended) The ~~derivative of a human CDR-grafted antibody conjugate~~ according to claim 1 [[2]], wherein the humanized antibody comprises:

the H chain V region and the L chain V region of the antibody comprises having
the amino acid sequences represented by SEQ ID NO:9; and ~~SEQ ID NO:54,~~
respectively

the L chain V region having the amino acid sequence represented by SEQ ID NO:54.

23. (Currently Amended) ~~The derivative of a human CDR-grafted antibody conjugate KM8871~~ according to claim 1 ~~[[2]]~~, wherein the humanized antibody is an antibody produced by a transformant KM8871 (FERM BP-6790)

~~the H chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:9; and~~

~~the L chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:54.~~

24. (Currently Amended) The antibody conjugate according to claim 1, wherein the antibody fragment is an antibody fragment selected from Fab, Fab', F(ab')₂, a single chain antibody (scFv), and a disulfide stabilized V region fragment (dsFv) ~~and a peptide comprising CDR1, CDR2 and CDR3 of the H chain V region and CDR1, CDR2 and CDR3 of the L chain V region.~~

Claims 25-31. (Canceled)

32. (Currently Amended) The derivative of the antibody ~~conjugate~~ fragment according to claim 1, wherein the antibody fragment comprises:

the an H chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:9; and

the an-L chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:54.

Claims 34-35. (Canceled)

36. (Currently Amended) The ~~derivative of a monoclonal antibody~~ conjugate or the antibody fragment thereof according to claim 1, wherein the protein is a cytokine.

37. (Currently Amended) The ~~derivative of a monoclonal antibody~~ conjugate or the antibody fragment thereof according to claim 36, wherein the cytokine is human interleukin-2 (hIL-2).

Claims 38-39. (Canceled)

40. (Currently Amended) The ~~derivative of an antibody~~ conjugate according to claim 37, wherein the ~~derivative of an antibody~~ conjugate comprises a human CDR-grafted humanized antibody produced by transformant KM8871 (FERM BP-6790) and hIL-2.

41. (Currently Amended) The ~~derivative of an antibody~~ conjugate according to claim ~~[[1]]~~ 37, wherein the antibody conjugated with hIL-2 comprises:

the [[an]] H chain V region having the amino acid sequence represented by SEQ ID NO:53; and

the L chain V region having the amino acid sequence represented by SEQ ID NO:54.

Claims 42-47. (Canceled)

48. (Currently Amended) A humanized antibody or an antibody fragment thereof which specifically binds to ganglioside GD3 and comprises:

an H chain V region having the amino acid sequence represented by SEQ ID NO:9 ~~or the amino acid sequence in which at least one or more amino acid residue selected from 10th position Gly, the 11th position Leu, 20th position Leu, 28th position Thr, 84th position Asn, 91st position Thr, 95th position Tyr, 97th position Ala and 115th position Val in the amino acid sequence represented by SEQ ID NO:9 is replaced with another amino acid residue; and~~

an L chain V region having the amino acid sequence in which at least one or more amino acid residue selected from 41st position Gly, 44th position Pro, 83rd position Phe and 87th position Tyr ~~49th position Tyr, the 65th position Ser and 71st position Phe~~ represented by SEQ ID NO:10 is replaced with Asp, Val, Ile and Phe, ~~respectively~~ another amino acid residue.

Claim 49. (Canceled)

50. (Currently Amended) The humanized ~~human CDR-grafted~~ antibody or the antibody fragment thereof according to claim 48 or 63, wherein the ~~human CDR-grafted~~ humanized antibody comprises:

~~CDRs of an H chain V region and an L chain V region of a monoclonal antibody against ganglioside GD3; and~~

FRs of an H chain V region and an L chain V region of a human antibody.

51. (Currently Amended) The humanized antibody or the antibody fragment thereof according to claim 48 or 63, wherein the humanized antibody comprises:

~~an H chain V region having the amino acid sequence represented by SEQ ID NO:9 or the amino acid sequence represented by SEQ ID NO:9 in which at least one or more amino acid residue selected from 10th position Gly, the 11th position Leu, 20th position Leu, 28th position Thr, 84th position Asn, 91st position Thr, 95th position Tyr, 97th position Ala and 115th position Val is replaced with another amino acid residue;~~

~~an L chain V region having the amino acid sequence represented by SEQ ID NO:10 in which at least one or more amino acid residue selected from 49th position Tyr, the 65th position Ser and 71st position Phe is replaced with another amino acid residue;~~
and

FRs of an H chain V region and L chain v region of a human antibody; and

an H chain C region and an L chain C region of a human antibody.

Claims 52-56. (Canceled)

57. (Currently Amended) The humanized ~~human CDR-grafted~~ antibody or the antibody fragment thereof according to claim 48 or 63, wherein

the H chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:9; and

the L chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:54.

58. (Currently Amended) The humanized ~~human CDR-grafted~~ antibody KM8871 or the antibody fragment thereof according to claim 48 or 63, wherein the humanized antibody is an antibody produced by a transformant KM8871 (FERM BP-6790)

~~the H chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:9; and~~

~~the L chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:54.~~

Claims 59-61. (Canceled)

62. (Currently Amended) A transformant KM8871 (FERM BP-6790) which produces the humanized ~~human CDR-grafted~~ antibody according to claim 48 or 63[[58]].

63. (New) A humanized antibody or an antibody fragment thereof which specifically binds to ganglioside GD3 and comprises:

CDR1, CDR2 and CDR3 of H chain V region having the amino acid sequences represented by SEQ ID NOs:3, 4 and 5, respectively; and

CDR1, CDR2 and CDR3 of L chain V region having the amino acid sequences represented by SEQ ID NOs:6, 7 and 8, respectively; and

an H chain V region having the amino acid sequence represented by SEQ ID NO:9, or

an L chain V region having the amino acid sequence represented by SEQ ID NO:54.

64. (New) The humanized antibody or the antibody fragment thereof according to claim 48 or 63, wherein the antibody fragment is an antibody fragment selected from Fab, Fab', F(ab')₂, a single chain antibody (scFv), and a disulfide stabilized V region fragment (dsFv).

65. (New) The -humanized antibody or the antibody fragment thereof according to claim 48 or 63, wherein the antibody fragment comprises:

the H chain V region having the amino acid sequence represented by SEQ ID NO:9; and

the L chain V region having the amino acid sequence represented by SEQ ID NO:54.